REMARKS

Applicant respectfully requests reconsideration of the present application in view of the reasons that follow. Claims 36-65 are pending in this application.

I. Allowance of Claims 40, 41, 43-47, 55, 56, 58, 62, 63, and 65

Applicant thanks the Examiner for recognizing that Claims 40, 41, 43-47, 55, 56, 58, 62, 63, and 65 are allowable over the cited art. However, Applicant believes that the remaining claims are also allowable over the cited art.

II. Rejection of Claims 36, 39, 42, 48-51, 54, 57, 59, 61, and 64 under 35 U.S.C. § 103(a)

In section 2 of the Office Action, Claims 36, 39, 42, 48-51, 54, 57, 59, 61, and 64 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,804,532 to Moon et al. (Moon) in view of U.S. Publication No. 2002/0142789 to Kuhl et al. (Kuhl). Applicant respectfully disagrees because Moon and Kuhl, alone and in combination, fail to teach, suggest, or disclose all of the elements of at least Claims 36, 51, and 59.

Independent Claim 1, as amended, recites in part:

> calculating a connectivity metric for a plurality of links defining each of a plurality of routes that connect a start node with an end node, … wherein the calculated connectivity metric for a link of the plurality of links is determined based on the first type of node and the second type of node;

Similarly, independent Claims 51 and 59, as amended, recite in part:

> calculate a connectivity metric for a plurality of links defining each of a plurality of routes that connect a start node with an end node, … wherein the calculated connectivity metric for a link of the plurality of links is determined based on the first type of node and the second type of node;

Moon describes "a method for re-routing communications based on link quality …." (Abstract). Relative to this method, Moon states:

In addition to determining link quality, router 130 may also determine at step 158 other appropriate metrics relating to the potential communication paths, as described above ....

Router 130 selects one or more of the potential communication paths based on one or more of these metrics at step 160 . Router 130 may give each metric any suitable weight with respect to other metrics and may use any appropriate metric or combination of metrics. Techniques for determining an optimal communication path based on metrics using a variety of different routing algorithms are well-known in the art and are not described in further detail. Any appropriate routing algorithm may be used.

(Col. 12 lines, 15-31; emphasis added). Thus, Moon generally states that "metrics" can be used in selecting a communication path. Moon clarifies the term "metric" by stating

> A metric is a standard of measurement that is used by routing algorithms to determine the optimal path to a destination...Examples of traditional metrics that have been used are path length, reliability, latency, bandwidth, load, and communication cost. Path length is the most common routing metric. In some instances, path length may be based on the sum of a "cost" associated with each network link that is included in a particular path. The "cost" of a particular link is typically assigned by a network administrator. Other routing protocols define path length as the number of routers or other internetworking devices through which a packet must travel en route from a source to a destination. This is typically referred to as a "hop count."

(Col. 9, lines 10-26; emphasis added). Thus, the "metric" of Moon is a traditional metric such as path length, reliability, latency, bandwidth, load, communication cost, and hop count. Moon, however, fails to teach, suggest, or describe use of a "connectivity metric" "determined based on the first type of node and the second type of node" as recited in Claims 36, 51, and 59.

The Examiner recognizes that Moon fails to "disclose wherein the calculated connectivity metric for a link of the plurality of links is determined based on the first type of node and the second type of node." (Page 3, of the Office Action). The Examiner looks to Kuhl to provide this teaching.

On pages 3-4 of the Office Action, the Examiner states:

> Kuhl et al disclose that in a Bluetooth piconet, the nodes much [sic] know the master/slave definitions so that the network can react flexibly to different network condition such as a change in topology. For example, a slave can refuse an order from a master if he is occupied with an order from another higher-ranking master. So, the network topology and master/slave assignments must be defined in a network so that a path can be determined since a slave must know which master it is to receive order from. Refer to Section 0013. .... For example, a slave in between two piconets must know whether the next hop is a slave or a master, and if it is a master node, the slave must know if it has to receive order from it.

Applicant respectfully disagree. Kuhl teach a:

> Method of prioritising the usage of slotted links by single network devices in a wireless network for adapting to varying traffic loads, comprising the steps of pre-setting a distribution of priorities for using a link to predetermined values, monitoring the current link usage, and adapting the priorities in accordance with the monitored usage.

(Abstract). At paragraph [0013] cited by the Examiner, Kuhl states:

> Advantageously, a first level of priority distinguishes between master and slave. A binary version of the master/slave concept may be sufficient for substantially linear network structures in which for example the main transmission direction may be inverted globally. In flexible network topologies with interconnection in which a single network device can be connected to more than one master, a binary master/slave concept is insufficient. In interconnected network structures a graduated master/slave concept can be applied, in which a slave can refuse an order from a master, if he is occupied with an order from another higher-ranking master. ....

Relative to the priority, Kuhl states that "there is provided a method of prioritising the usage of slotted links by single network devices in a wireless network for adapting to varying traffic loads." (Para. [0010]). Thus, Kuhl describes prioritizing usage of slotted links. In addition, Kuhl teaches the ability to distinguish "between master and slave." (Para. [0013]). However, Kuhl fails to teach, suggest or describe anything related to "selecting a route for

communicating information in a communication network." Prioritizing slot usage is not related to selecting a route used to communicate information, but merely to determining a time window in which a device is permitted to communicate. Therefore, Kuhl fails to describe any calculation of a connectivity metric whatsoever. Further, Kuhl fails to teach, suggest, or describe "calculating a connectivity metric for a plurality of links defining each of a plurality of routes that connect a start node with an end node, ... determined based on the first type of node and the second type of node" as recited in Claims 36, 51, and 59.

A rejection under 35 U.S.C. § 103(a) cannot be properly maintained where the references used in the rejection do not disclose all of the recited claim elements. The remaining claims depend from one of Claims 36, 51, or 59. Therefore, Applicant respectfully requests withdrawal of the rejection of Claims 36, 39, 42, 48-51, 54, 57, 59, 61, and 64.

III. Rejection of Claims 37, 38, 52, 53, and 60 under 35 U.S.C. § 103(a)

In section 3 of the Office Action, Claims 37, 38, 52, 53, and 60 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Moon in view of Kuhl and further in view of U.S. Publication No. 2003/0119538 to Momosaki et al. (Momosaki). Applicant respectfully disagrees because Moon, Kuhl, and Momosaki, alone and in combination, fail to teach, suggest, or disclose all of the elements of at least Claims 36, 51, and 59.

As discussed in Section II., Moon and Kuhl fail to teach at least "calculating a connectivity metric for a plurality of links defining each of a plurality of routes that connect a start node with an end node, ... determined based on the first type of node and the second type of node" as recited in Claims 36, 51, and 59. Momosaki describes:

> A radio communication terminal network with a tree structure is formed in such a way that a plurality of receiving side terminal devices on a downstream side of a source terminal device are connected to the source terminal device, and other receiving side terminal devices on a further downstream side are connected to at least one of the plurality of the receiving side terminal devices.

(Abstract). Momosaki states:

> The bandwidth is shared by these eight terminals, so that there is a possibility for becoming impossible to secure the bandwidth necessary for the data transmission if the number of slaves is increased. Here, the necessary throughput is changed according to the requested quality of the contents data 26, so that it is possible to reduce the number of slaves that can be connected according to the necessary throughput.
>
> It is also possible to set the number of slaves that can be connected in accordance with the throughput necessary for the transmission of the contents data 26, according to the contents data 26 received from the upstream side device. For example, when there is a bandwidth of 720 kbps available for communication from the upstream side toward the downstream side, and the contents data 26 requires 180 kbps, the number of slaves that can be connected is limited to at most four.

(Paras. [0075]-[0076])). Thus, Momosaki is directed to sharing bandwidth wherein the number of slaves may be reduced or set in order to secure the bandwidth necessary for data transmission. However, Momosaki fails to teach, suggest or describe anything related to "selecting a route for communicating information in a communication network." Sharing bandwidth is not related to selecting a route used to communicate information, but merely to determining a number of slave devices which can communicate given an amount of bandwidth. Thus, Momosaki also fails to teach, suggest, or describe "calculating a connectivity metric for a plurality of links defining each of a plurality of routes that connect a start node with an end node, … determined based on the first type of node and the second type of node" as recited in Claims 36, 51, and 59.

A rejection under 35 U.S.C. § 103(a) cannot be properly maintained where the references used in the rejection do not disclose all of the recited claim elements. Claims 37, 38, 52, 53, and 60 depend from one of Claims 36, 51, or 59. Therefore, Applicant respectfully requests withdrawal of the rejection of Claims 37, 38, 52, 53, and 60.

Applicant believes that the present application is in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By _____

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